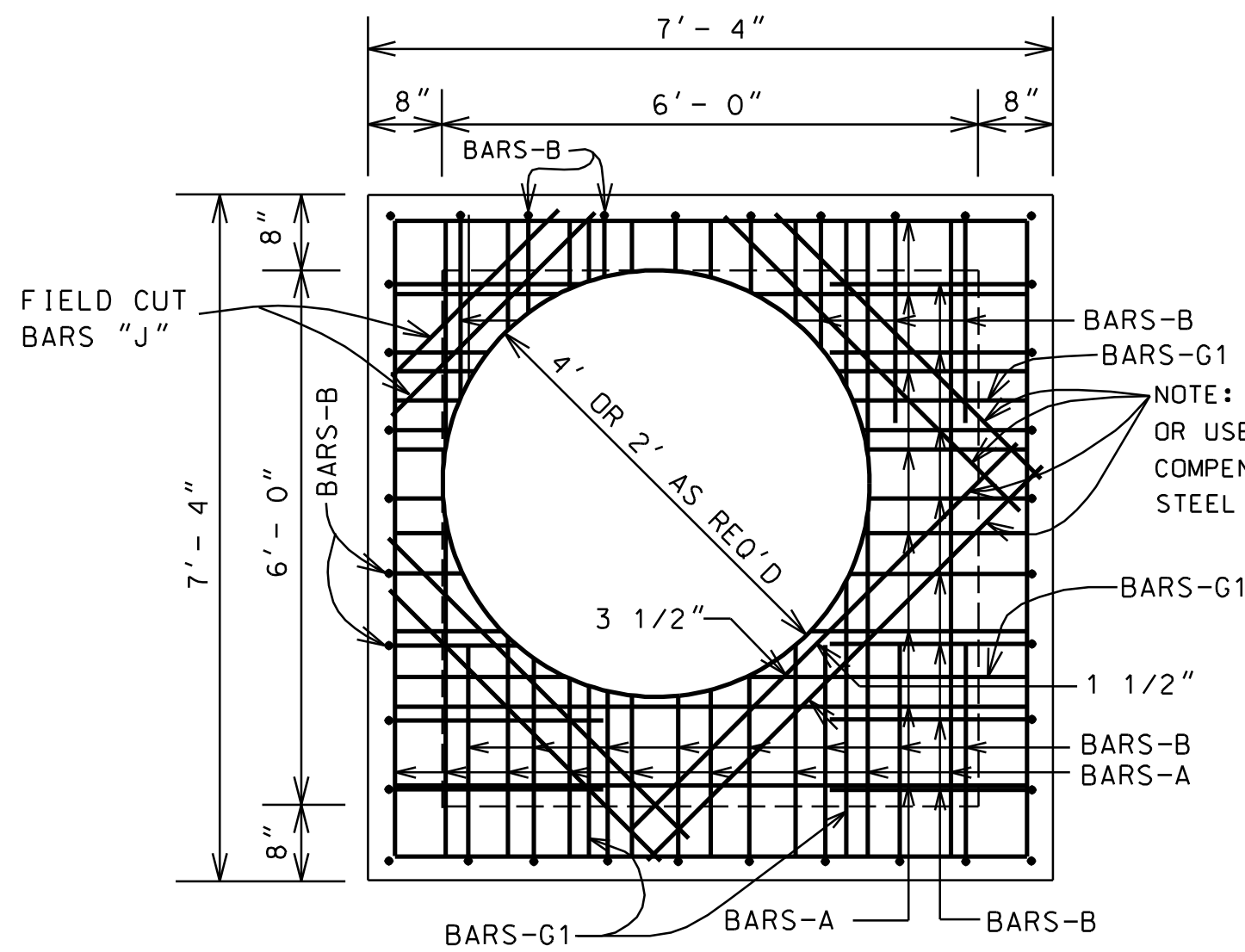
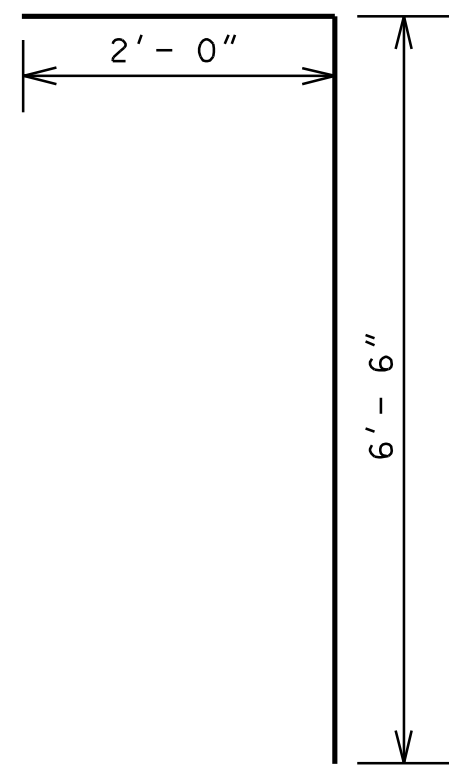


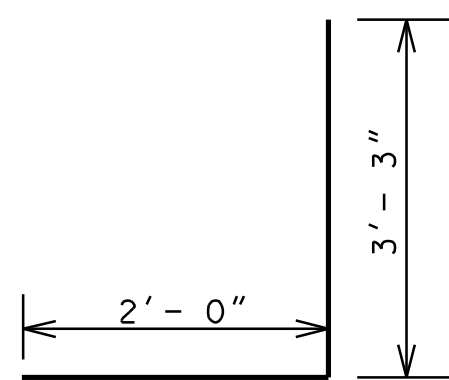
PLAN



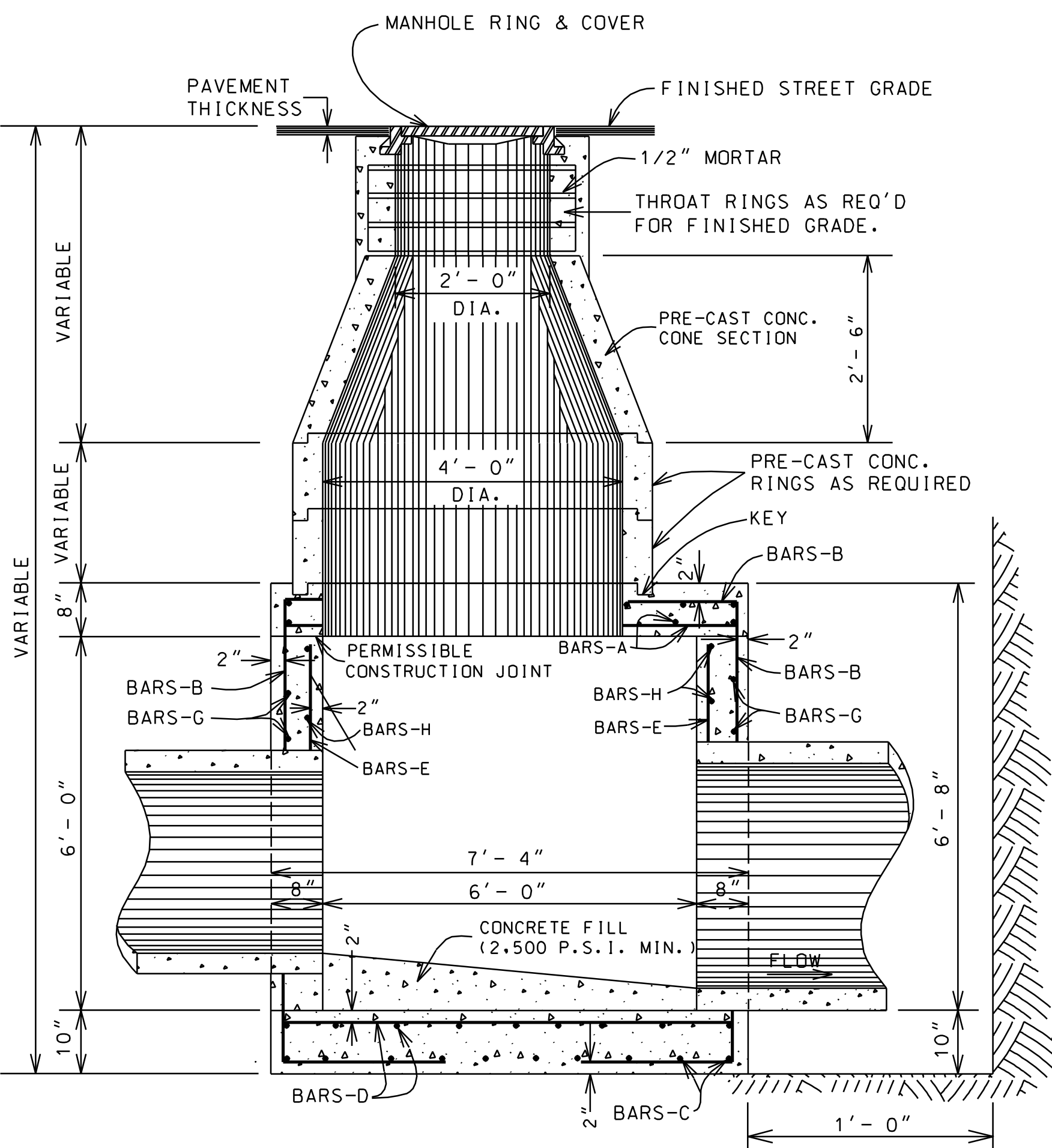
PLAN  
OF JUNCTION BOX TOP SLAB SHOWING STEEL



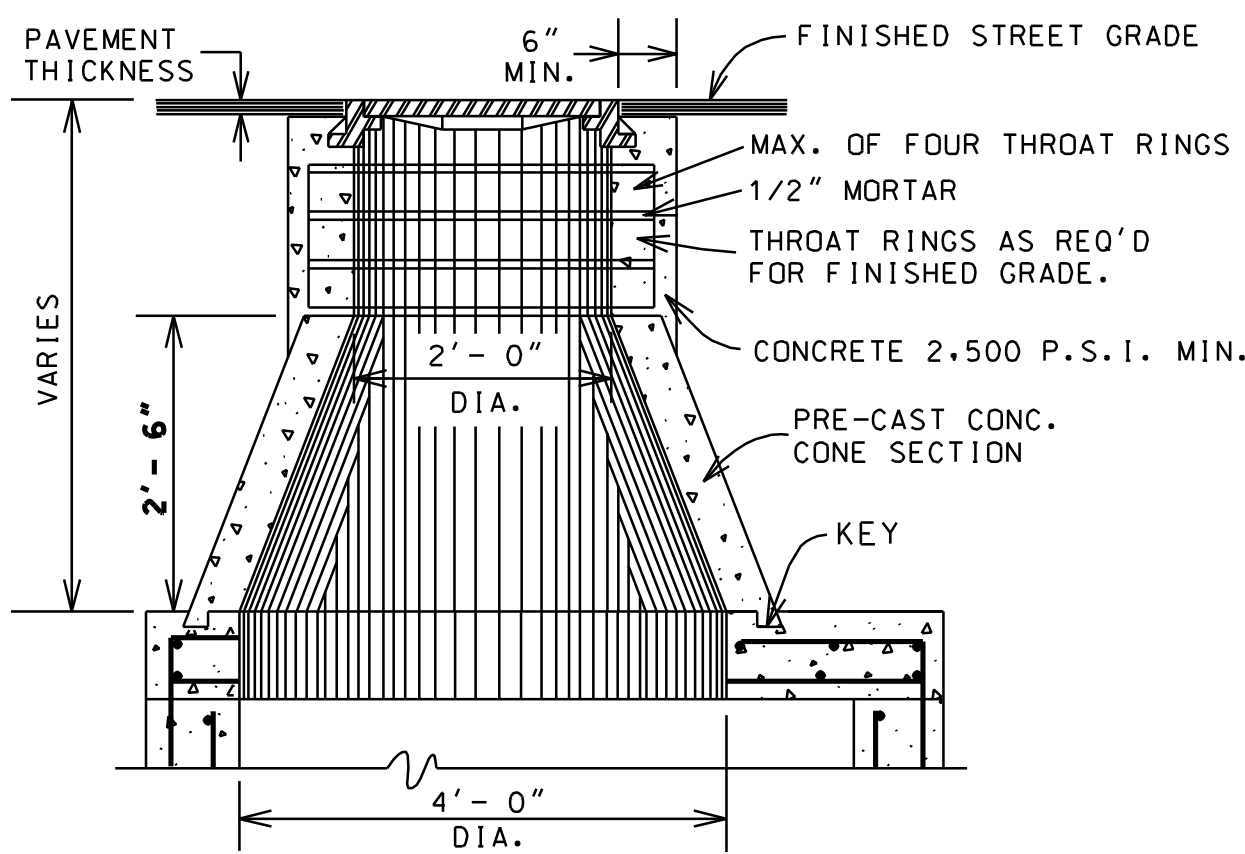
BARS-B



BARS-C

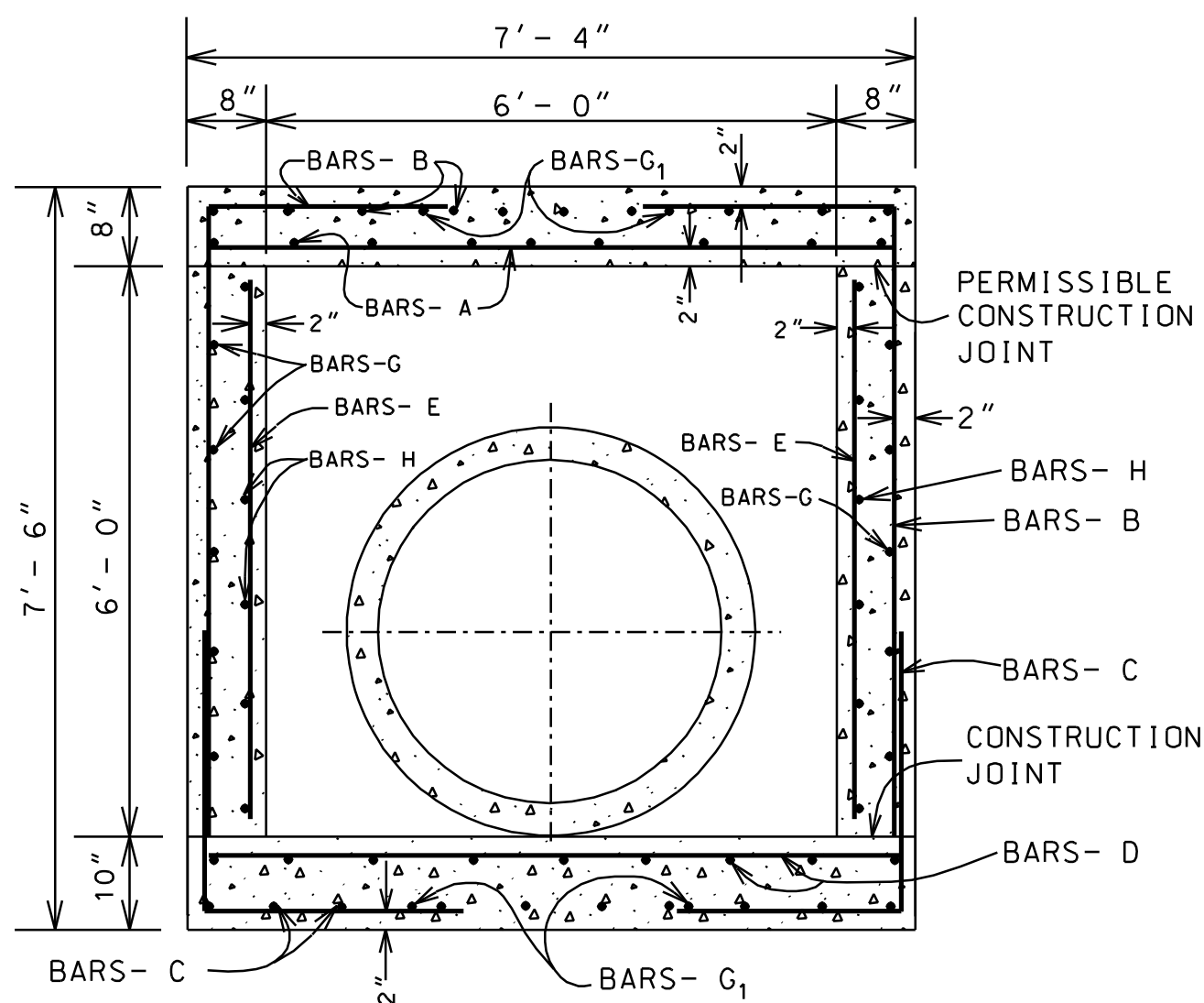
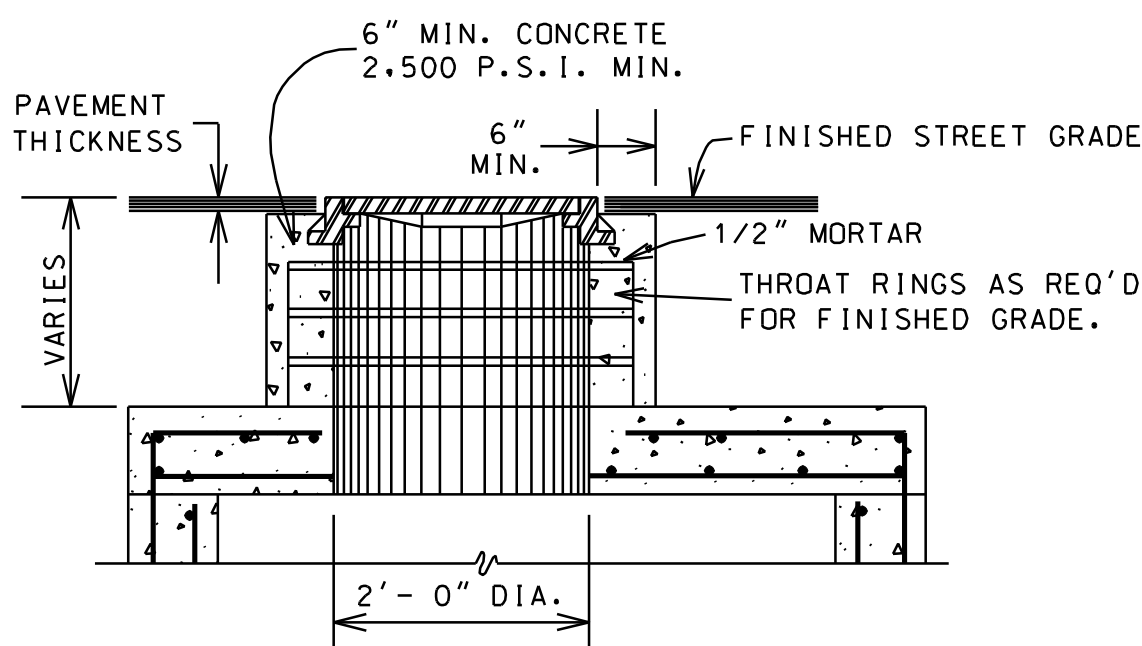


SECTION A-A

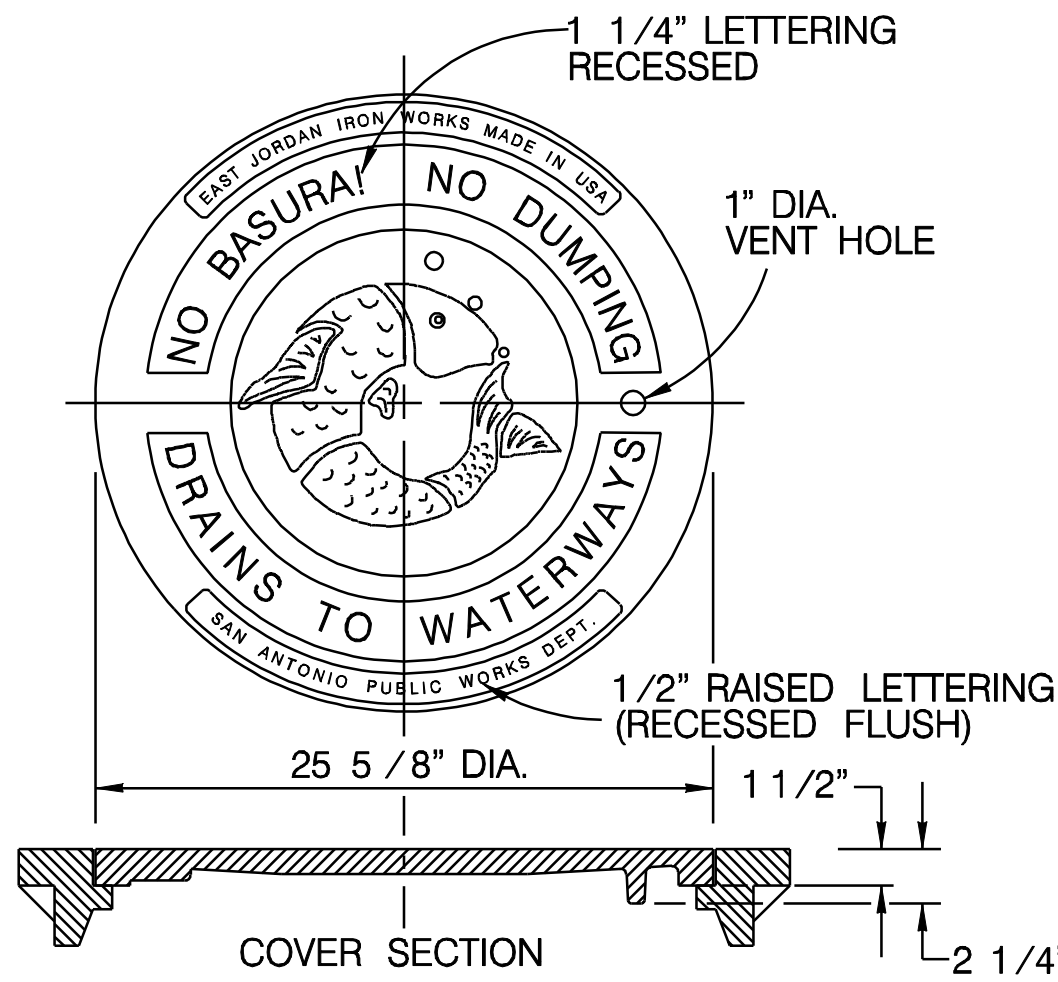


VARIATION OF VERTICAL STOCK

VERTICAL STACK DESIGN SHALL BE GOVERNED BY THE DEPTH OF THE TOP OF THE JUNCTION BOX BELOW THE FINISHED STREET GRADE.



SECTION B-B



MANHOLE LID & RING DETAIL

SCALE: 1:8

NOTES FOR MANHOLE LID AND RING

1. FOR LID DESIGN OUTSIDE OF CITY OF SAN ANTONIO, DELETE "SAN ANTONIO PUBLIC WORKS DEPT."
2. CASTING NUMBER AND MANUFACTURER'S I.D. ON LID AND RING.
3. LOAD BEARING CAPABILITY OF HS-20 MINIMUM.
4. THE LOAD BEARING SURFACES SHALL BE MACHINE GROUND.
5. THE COMBINED WEIGHT OF THE MANHOLE RING AND COVER MUST BE AT LEAST 260 LBS.

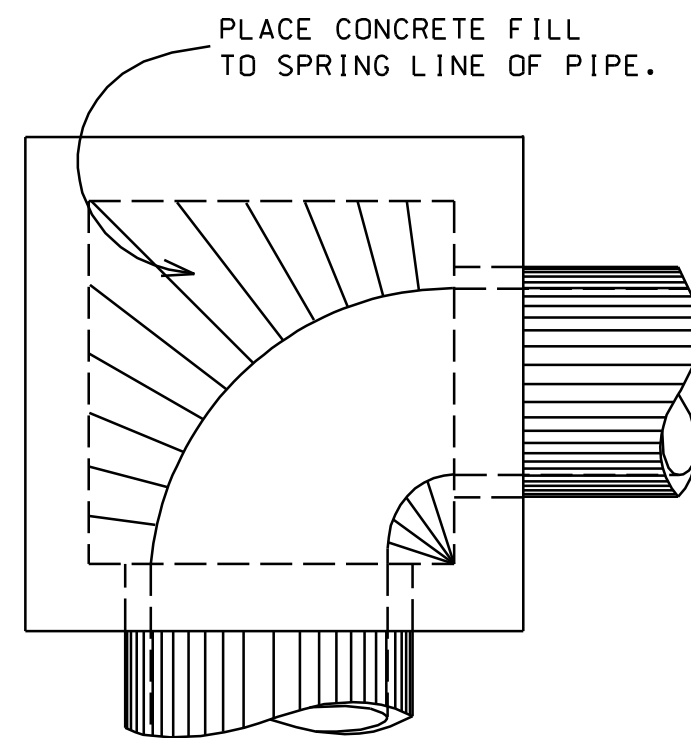
SCHEDULE FOR REINFORCING STL.

SHAPE	BAR	NO.	SIZE	SPACING	LENGTH	WEIGHT
STRAIGHT	A	21	4	9" O.C.	7' - 1"	99
	B	46	5	8" O.C.	8' - 6"	408
	C	46	5	8" O.C.	5' - 3"	252
STRAIGHT	D	21	4	9" O.C.	7' - 1"	99
STRAIGHT	E	28	3	12" O.C.	5' - 11"	62
STRAIGHT	G	20	4	12" O.C.	7' - 1"	95
STRAIGHT	G <sub>1</sub>	8	4	AS SHOWN	6' - 1"	33
STRAIGHT	H	27	3	12" O.C.	7' - 1"	72
STRAIGHT	J	8	6	3 1/2" O.C.	4' - 11"	59
TOTAL						1,179 LBS.

CLASS "A" CONCRETE - 6.94 CU. YDS.  
(DOES NOT EXCLUDE MANHOLE OPENINGS OR PIPE OPENING)

\* NOTE: BAR SIZE AND SPACING BASED ON SPANS AS SHOWN. ANY REVISIONS TO THESE SPANS SHALL INCLUDE A RE-DESIGN ON STEEL REQ'D.

1. CONCRETE FOR STRUCTURE SHALL BE CLASS "A" 3,000 P.S.I. AT 28 DAYS.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
3. REINFORCING STEEL SHALL BE NEW BILLET STEEL, INTERMEDIATE GRADE, ASTM A-15. THE DEFORMATION SHALL CONFORM TO ASTM A-305.
4. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
5. ALL BARS INTERCEPTING MANHOLE OPENING AND REINFORCED CONCRETE PIPE SHALL BE FIELD-CUT.
6. WHERE LAPPING OF BARS IS REQUIRED, A MINIMUM LAP OF 33 DIAMETERS SHALL BE USED.
7. INVERT OF JUNCTION BOX TO BE SHAPED WITH CONCRETE FILL (2,500 P.S.I. MIN.) TO EFFECT DRAINAGE TO OUTLET PIPE. COST SUBSIDIARY TO CLASS "A" CONCRETE (JUNCTION BOXES).



CURVED DEFLECTOR DETAIL

JANUARY 2005

STANDARD PLANS  
CITY OF SAN ANTONIO, TEXAS  
DEPARTMENT OF PUBLIC WORKS

6'x6'x6' JUNCTION BOX  
STANDARDS

DRAWN BY:	DATE	REVISIONS	SCALE: SEE ABOVE
CHECKED BY:			DATE:
NAT HARDY, P.E.			SHEET: OF